

REMARKS

Please cancel Claims 17-25 without prejudice. New Claims 37-38 are added. Claims 1-14, 16, 26-30 and 36-38 are pending. Claims 1, 13, 26 and 36 are amended. Applicant believes that no new matter is added as a result of the claim amendments. Support for the claim amendments can be found at least on page 5, lines 10-16, of the application.

103 Rejections

According to the Office Action, Claims 1-14, 16, 26-30 and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the article by A. Bindra dated November 6, 2000, entitled "Programmable SoC Delivers a New Level of System Flexibility" (hereinafter, "Bindra"), in view of the article by J. Hamblen dated June 2000, entitled "Rapid Prototyping Using Field-Programmable Logic Devices" (hereinafter, "Hamblen"). Applicant respectfully submits that the features of Claims 1-14, 16, 26-30 and 36 are not shown or suggested by Bindra (at page 3 and Figure 4) and Hamblen (at page 36 and Figure 11), alone or in combination.

Applicant respectfully agrees with the statement on page 6 of the Office Action that Bindra does not address the claimed feature "automatically constructing source code." Hamblen is relied upon to teach this claimed feature admittedly lacking from Bindra. However, Applicant respectfully submits that Hamblen does not overcome the shortcomings of Bindra. Hamblen's Figure 11 shows a "VHDL source code file," but Hamblen does not appear to describe how such a file is generated.

Therefore, Applicant respectfully submits that neither Bindra nor Hamblen nor the combination thereof shows or suggests "constructing completely computer-generated source code" as recited in independent Claim 1; or "automatically constructing assembly code" as recited in independent Claims 13 and 26.

Furthermore, in general, Applicant respectfully submits that neither Hamblen nor Bindra nor the combination thereof shows or suggests the particular manner for automatically constructing source code that is specifically recited in the claims of the present application.

More specifically, Applicant respectfully submits that neither Bindra nor Hamblen nor the combination thereof shows or suggests a user interface that can be used to receive user-specifiable information about a user module, where the user-specifiable information is subsequently and automatically used in the construction of, for example, source code that includes configuration information that can be loaded into a register of a physical block so that the block implements a specified function. Specifically, Applicant respectfully submits that neither Bindra nor Hamblen nor the combination thereof shows or suggests "displaying a first graphical user interface ... comprising a collection of virtual blocks in a design system; receiving ... a selection of a user module, wherein said user module comprises information for implementing a function using a programmable physical block; displaying ... a second graphical user interface operable for receiving user-specifiable information about said user module; ... and constructing completely computer-generated source code that is loaded into a register of said programmable physical block to cause said programmable

physical block to implement said function" as recited in the independent Claim 1 and as similarly recited in independent Claims 13 and 26.

Bindra's Figure 4 shows a user interface that displays global resources and another user interface that displays user module parameters. However, there is no showing or suggestion in Bindra, or in Hamblen or in the combination thereof, that those resources or parameters are user-specifiable values, nor is there any showing or suggestion in Bindra with regard to what the displayed resources or parameters represent or how they are established and/or used.

In addition, Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest "wherein said assembly code is constructed from template assembly code by substituting said user-specifiable information and information specific to said circuit design for generic information in said template assembly code" as recited in independent Claims 13 and 26 and as similarly recited in Claim 36 (which depends from independent Claim 1).

Moreover, Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest substituting user-specifiable values as defined by the claims into a template file before derivatives of the template file (e.g., assembly, include and header files) are compiled. Specifically, Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest "substituting said user-specifiable comprising information specific to said user module, information specific to said function and information specific to a control parameter of said function for generic information in said template files to produce assembly, include and header files; compiling said

assembly, include and header files to produce an executable file" as recited in independent Claim 26 and as also recited in Claims 36 and 38 (which depend from independent Claims 1 and 13, respectively).

Also, Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest representing a user module by first markup language data that includes information defining how configuration registers for a microcontroller are to be programmed in order to implement a function, or representing a programmable physical block represented by second markup language data that includes information defining physical addresses of the configuration registers, and then linking the first and second markup language data as part of the process of automatically constructing source code.

Specifically, Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest "said user module represented by first markup language data that includes information defining how configuration registers for said microcontroller are to be programmed in order to implement said function, said programmable physical block represented by second markup language data that includes information defining physical addresses of said configuration registers" as recited in independent Claim 26 and as also recited in Claims 37 and 38 (which depend from independent Claims 1 and 13, respectively).

In summary, Applicant respectfully submits that the basis for rejecting independent Claims 1, 13 and 26 under 35 U.S.C. § 103(a) is traversed and that these claims are in condition for allowance.

Furthermore, each of the Claims 2-12 and 36 includes all of the claimed features of independent Claim 1 plus additional claimed features. Each of the Claims 14 and 16 includes all of the claimed features of independent Claim 13 plus additional claimed features. Each of the Claims 27-30 includes all of the claimed features of independent Claim 26 plus additional claimed features. Applicant respectfully submits that Bindra and Hamblen, alone or in combination, do not show or suggest the claimed features of Claims 2-12, 14, 16, 22-24, 27-30 and 36 in combination with the claimed features of their respective base claims, and also that Claims 2-12, 14, 16, 27-30 and 36 are in condition for allowance as depending from allowable claims. Therefore, the Applicant respectfully asserts that the basis for rejecting Claims 2-12, 14, 16, 27-30 and 36 under 35 U.S.C. § 103(a) is also traversed and that these claims are also in condition for allowance.

Conclusions

In light of the above remarks, reconsideration of the rejected claims is respectfully requested.

Based on the arguments presented above, it is respectfully asserted that Claims 1-14, 16, 26-30 and 36, as well as new Claims 37-38, overcome the rejections of record, and therefore allowance of these claims is solicited.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Please charge any associated fees or apply any credits to our PTO deposit account number: 50-4160.

Respectfully submitted,

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